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| 10/733,927 | 12/10/2003 | Moo Ryong Jeong | M-15392 US | 8607 |

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| EXAMINER | |
|---|---|
| IQBAL, KHAWAR | |
| **ART UNIT** | **PAPER NUMBER** |
| 2617 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/733,927 | JEONG ET AL. | |
| | Examiner | Art Unit | |
| | KHAWAR IQBAL | 2617 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *18 March 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-13 and 17-39* is/are pending in the application.

4a) Of the above claim(s) *27-39* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13 and 17-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/2/2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-7 and 17-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not disclose or make obvious the claimed term of "likelihood" claim 1 and 17. The specification merely states that “there would be a possibility of domain change after wireless stations have lost a connection with the access point (para. # 0020). However, the specification fails to clearly define or provide support nearly added term "likelihood". Thus "likelihood" was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action: A person shall be entitled to a patent unless –(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty

defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Grilli et al (7245597).

Regarding claim 1 Grilli et al teaches a method of enabling channel scanning in a wireless station (102), said method comprising (figs. 1 and 4):

receiving from an access point (base station 106a, fig. 1 and 4), a data packet that includes a data field for specifying a value that indicates a likelihood of a regulatory domain (Inter-system handover, tune frequency1 to frequency2) change (base station 106a transmits a frequency change command to the mobile station 102 under a Candidate Frequency Search Request Control Message, col. 6, liners 30-41, 60-63, fig. 4); and,

after a connection with the access point is terminated (col. 12, lines 49-50, While searching on the target frequency f2, the base station 106a will lose communication with the mobile station 102),

selecting a channel scanning method based upon the value of said data field (col. 6, lines 66-67, In response to this command, the mobile station 102 tunes to the target frequency f2).

Regarding claim 2 Grilli et al teaches wherein said value of said data field is a binary value that indicates whether or not there is a possibility of a regulatory domain change (col. 1, lines 58-65, col. 6, liners 30-41, 60-67, fig. 4).

Regarding claim 3 Grilli et al teaches wherein said value in said data field is determined based on geographic information regarding the vicinity of the access point (col. 1, lines 58-65, col. 6, liners 30-41, 60-67, fig. 4, Inter-system handover).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grilli et al (7245597) in view of Comp (20040203698).

Regarding claim 4-7 Grilli et al teaches hard handoffs between cells in such systems.

Grilli et al does not specifically teach in detail wherein said value in said data field is determined based on proximity information of the access point related to a predetermined point and wherein said value in said data field is determined based on coverage area and geographical information regarding the vicinity of the access point and wherein said selecting a channel scanning method comprises selecting a safe channel scanning method when the value of the data field indicates that there is a possibility of a regulatory domain change is likely.

In an analogous art, Comp teaches wherein said value in said data field is determined based on proximity information of the access point related to a predetermined point and wherein said value in said data field is determined based on coverage area and geographical information regarding the vicinity of the access point and wherein said selecting a channel scanning method comprises selecting a safe channel scanning method when the value of the data field indicates that there is a possibility of a regulatory domain change is likely (para. # 0021-0025). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Grilli et al teaches by specifically adding features in order

to notification of loss of network connection to user is reliably performed, thus enabling user to take appropriate action taught by Comp.

7. Claims 8-13, 17-21 and 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu (20040203762) in view of Comp (20040203698).

Regarding claims 8, 22 liu teaches a method of enabling channel scanning in a wireless station, said method comprising:

establishing communication between said wireless station and an access point (para. # 0017);

receiving, from said access point, a data packet that includes regulatory domain information specifying a value that represents a period of time for which the regulatory domain information in the data packet remains valid after the termination of communication between said wireless station and said access point (para. # 0017-0018); and

after an elapsed period of time following the termination of communication between said wireless station and said access point determining whether or not the elapsed period of time is greater than the period of time represented by the value in lifetime field (para. # 0017-0021). Liu does not specifically teach receiving lifetime field information.

In an analogous art, Comp teaches receiving lifetime field information (para. # 0021-0025). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Liu teaches by pre-alert field in

order to notification of loss of network connection to user is reliably performed, thus enabling user to take appropriate action taught by Comp.

Regarding claims 9, 23 liu teaches wherein the value specified in said lifetime field is determined based in part receiving information comprises obtaining the shortest distance from a regulatory domain boundary to an edge of the coverage area of the access point.

Regarding claims 10, 24 liu teaches further comprising obtaining a speed of said wireless station (fig. 1).

Regarding claims 11, 25 liu teaches further comprising selecting a safe channel scanning method if the elapsed period of time is greater than the period of time represented by the value specified in said lifetime field (para. # 0017-0021).

Regarding claims 12, 26 liu teaches further comprising determining whether or not there is a possibility of a regulatory domain change is likely when the termination of communication between said wireless station and said access point (para. # 0017-0021).

Regarding claim 13 liu teaches further comprising performing safe channel scanning when it is determined that there is a possibility of a regulatory domain change is likely (para. # 0017-0021).

Regarding claim 17 Liu teaches a wireless station which scans for channels in a wireless communication network, said wireless station comprising (figs. 1-3):

a receiver for receiving a data packet, wherein said data packet comprises a regulatory domain change (para. # 17);

a controller (210) coupled to said receiver (212), said controller selecting a channel scanning method based upon data in said domain change for specifying a value indicating a likelihood of a regulatory domain change when communication between the wireless station and the receiver (para. # 0017-21); and

a transmitter (210) coupled to said controller (210).

Liu does not specifically teach pre-alert field.

In an analogous art, Comp teaches pre-alert field (para. # 0021-0025). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Liu teaches by pre-alert field in order to notification of loss of network connection to user is reliably performed, thus enabling user to take appropriate action taught by Comp.

Regarding claim 18 Liu teaches wherein said domain change comprises a bit indicating whether there is a possibility of regulatory domain change (para. # 0017-0021 and see Comp, para. # 0021-0025).

Regarding claim 19 Liu teaches wherein the transmitter transmits a probe frame if said regulatory domain change pre-alert field is not set (para. # 0017-0021 and see Comp, para. # 0021-0025).

Regarding claim 20 Liu teaches wherein said domain change pre-alert field is sent in a beacon frame (para. # 0017-0021 and see Comp, para. # 0021-0025).

Regarding claim 21 Liu teaches wherein said domain change pre-alert field is sent in a probe response frame (para. # 0017-0021 and see Comp, para. # 0021-0025).

### *Response to Arguments*

8. Applicant's arguments with respect to claims 1-13, 17-26 have been considered but are moot in view of the new ground(s) of rejection.

### *Conclusion*

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAWAR IQBAL whose telephone number is (571)272-7909. The examiner can normally be reached on 9 am to 6.30 pm Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GEORGE ENG can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/
Supervisory Patent Examiner, Art Unit 2617

Khawar Iqbal
Examiner
Art Unit 2617